

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: MORGAN POND	Lake Area (ha):	13.76
Town: SPRINGFIELD	Maximum depth (m):	11.5
County: Sullivan	Mean depth (m):	3.4
River Basin: Connecticut	Volume (m ³):	466500
Latitude: 43°28'34" N	Relative depth:	2.7
Longitude: 72°01'09" W	Shore configuration:	1.71
Elevation (ft): 1681	Areal water load (m/yr):	9.90
Shore length (m): 2250	Flushing rate (yr ⁻¹):	2.90
Watershed area (ha): 222.7	P retention coeff.:	0.55
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

		8 February 1996	14 August 1995
DOM. PHYTOPLANKTON (% TOTAL)	#1	PERIDINIUM 85%	DINOBRYON 35%
	#2		RHIZOLENIA 20%
	#3		PERIDINIUM 10%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			6.34
DOM. ZOOPLANKTON (% TOTAL)	#1	NAUPLIUS LARVA 30%	KELICOTTIA 34%
	#2	KELICOTTIA 26%	BOSMINA 27%
	#3	KERATELLA 19%	CYCLOPOID COPEPOD 27%
ROTIFERS/LITER		51	
MICROCRUSTACEA/LITER		33	
ZOOPLANKTON ABUNDANCE (#/L)		84	
VASCULAR PLANT ABUNDANCE			Scattered
SECCHI DISK TRANSPARENCY (m)			3.2
BOTTOM DISSOLVED OXYGEN (mg/L)		6.7	0.4
BACTERIA (E. coli, #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m):	4.2
Hypolimnion volume (m ³):	35000
Anoxic volume (m ³):	4000

CHEMICAL:

Lake: MORGAN POND

Town: SPRINGFIELD

	8 February 1996		14 August 1995		
DEPTH (m)	3.0	6.0	1.5	5.0	9.0
pH (units)	5.4	5.4	6.5		
A.N.C. (Alkalinity)	1.8	1.8	2.2		
NITRATE NITROGEN	< 0.05	< 0.05			
TOTAL KJELDAHL NITROGEN	0.20	0.30	0.35	0.22	0.23
TOTAL PHOSPHORUS	0.010	0.009	0.008	0.009	0.013
CONDUCTIVITY (μ mhos/cm)	24.8	24.1	22.4	23.3	24.3
APPARENT COLOR (cpu)	65	65	60	70	62
MAGNESIUM			0.37		
CALCIUM			1.8		
SODIUM			1.1		
POTASSIUM			< 0.40		
CHLORIDE	< 2	< 2			
SULFATE					
TN : TP	20	33			
CALCITE SATURATION INDEX			4.2		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1995

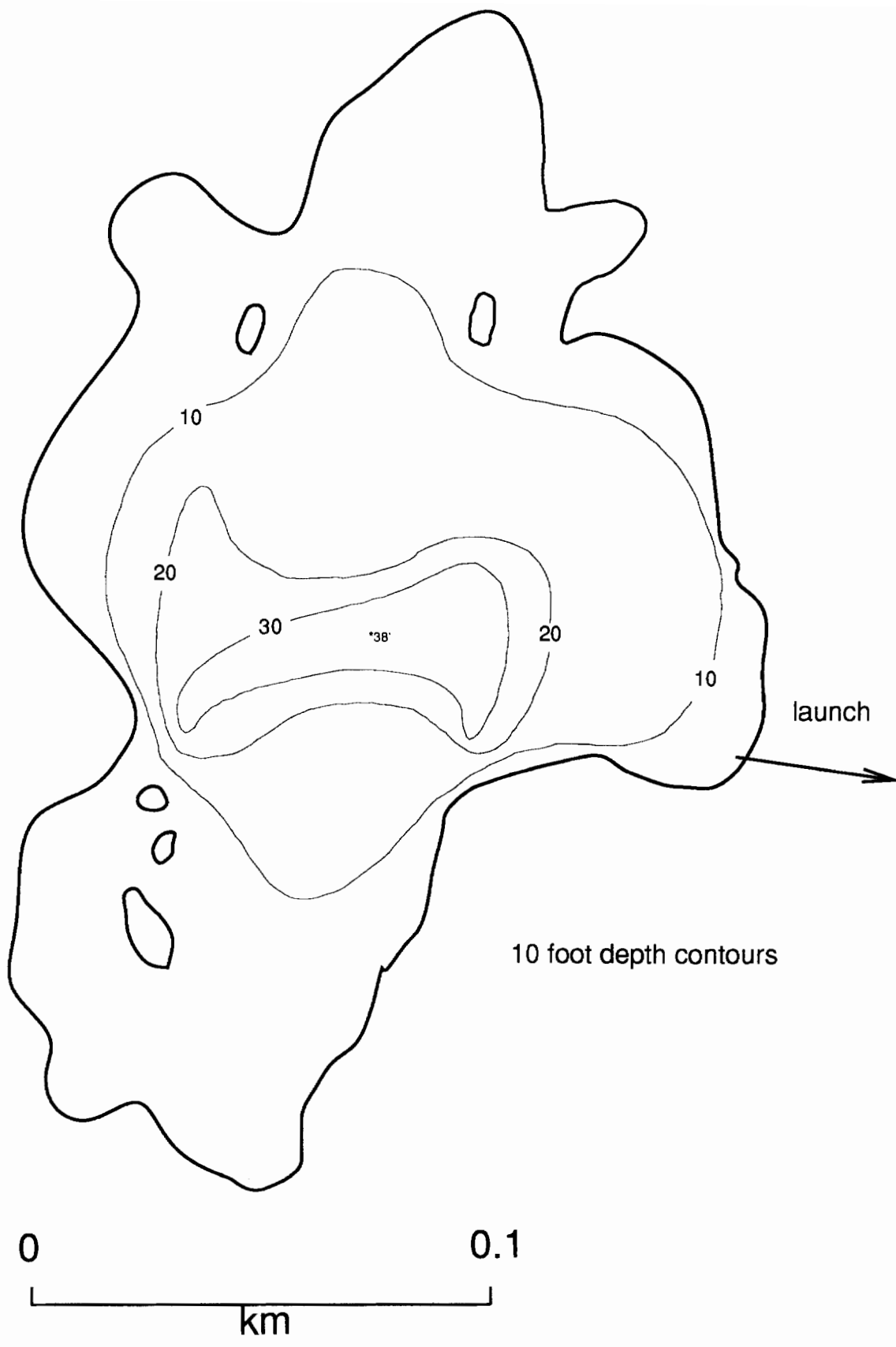
D.O. S.D. PLANT CHL TOTAL CLASS

3	2	1	1	7	Meso.
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COMMENTS:

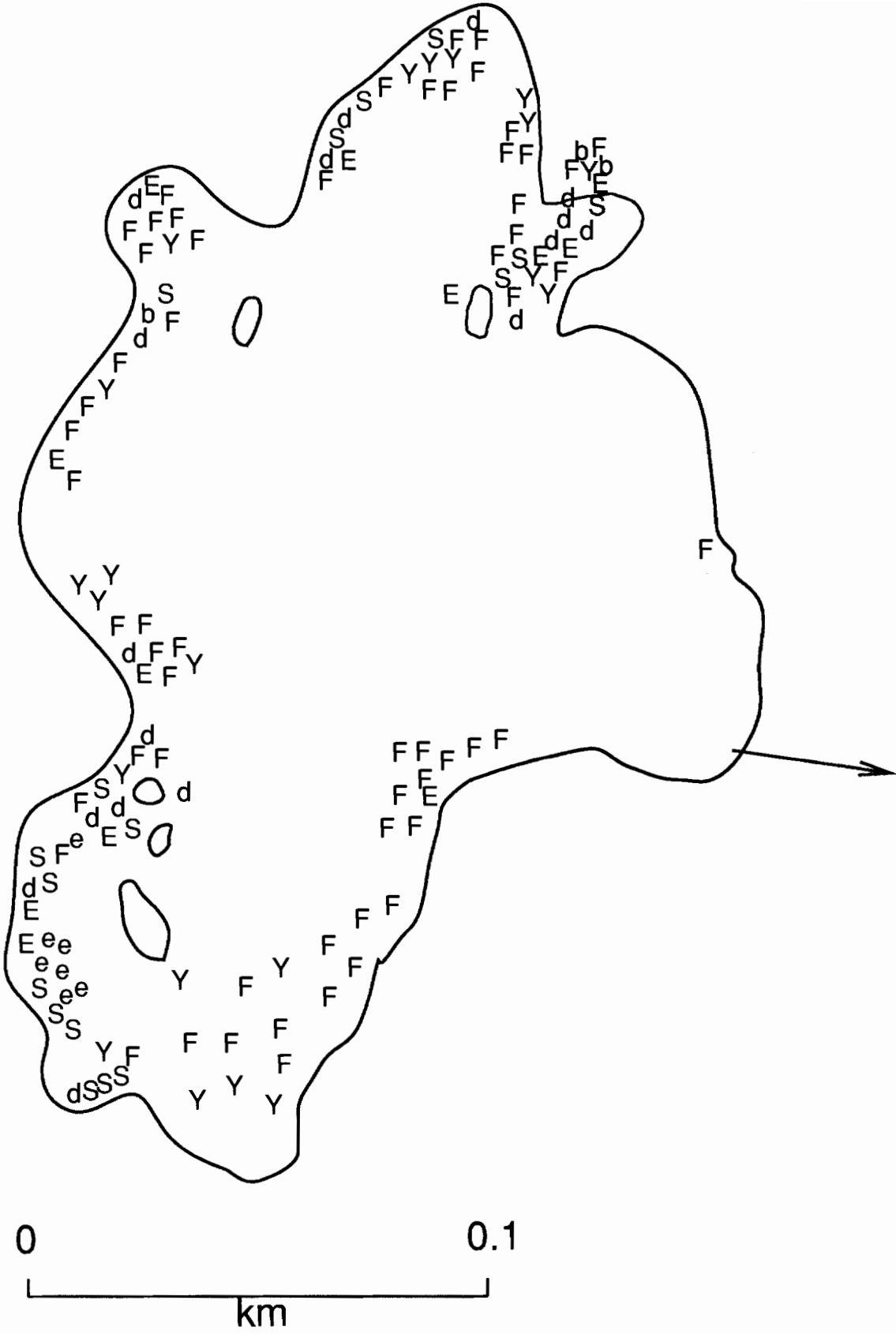
1. This pond is the former public water supply for the Town of New London. There is no public access. A gated 4-wheel drive road does go to the pond; keys to the gate are obtained from the Public Works Office.
2. There is no development around the pond. It was surveyed jointly with the Fish & Game Department, at the request of the town.
3. This is a tea-colored pond surrounded by wetland shrubs.

Morgan Pond
Springfield



[illegible]

Morgan Pond
Springfield



[illegible]